



Investigating and Reporting Suspected Releases indicated by Monitoring Results

Section 9 VAC 25-580-190.3 of the UST regulation generally requires reporting a suspected release when results of a release detection method indicate a release may have occurred. That said, it also provides several avenues for an owner or operator to investigate and rule out a suspected release without reporting to DEQ. The specific language in the regulation is as follows:

190.3. Monitoring results, including investigation of an alarm, from a release detection method required under [9VAC25-580-140](#) and [9VAC25-580-150](#) that indicate a release may have occurred unless:

- a. The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result;
- b. The leak is contained in the secondary containment and:
 - (1) Except as provided for in subdivision 7 b (4) of [9VAC25-580-160](#), any liquid in the interstitial space not used as part of the interstitial monitoring method (for example, brine filled) is immediately removed; and
 - (2) Any defective system equipment or component is immediately repaired or replaced;
- c. In the case of inventory control, described in subdivision 1 of [9VAC25-580-160](#), a second month of data or in the case of manual tank gauging, a second week or month as prescribed in the chart under subdivision 2 d of [9VAC25-580-160](#) does not confirm the initial result or the investigation determines no release has occurred; or
- d. The alarm was investigated and determined to be a non-release event (for example, from a power surge or caused by filling the tank during release detection testing).

Tank owners should document actions taken to rule out an actual release under paragraph a through d of this section of the regulation, including investigation steps and any necessary repairs.

How to investigate

Automatic tank gauge methods: If an automatic tank gauge indicates a tank or piping failure via a failed test or leak alarm, owners and operators must first follow the recommended procedure laid out in the equipment or systems operations manual, for investigating a failed test or leak alarm, i.e., following the manufacturer's recommendations for investigating the alarm. Running another ATG (.2 gph) test and receiving a passing result, unless it is an ATG or third party static test (.1 gph), is not sufficient basis to rule out a release. Instead, the owner must determine the reason for the failed test or alarm, correct/repair the problem, if one exists, and document the repair or correction.

Interstitial monitoring: If the tank and/or piping is secondarily contained and a monitoring device indicates that liquid has entered or exited the interstitial space, an owner or operator does not have to report it if: (1) the outer wall is still intact; (2) any excess liquid (not used to monitor the interstitial space) is removed; and, (3) the owner provides documentation that any defective system equipment is immediately repaired and replaced. A passing ATG test result is insufficient to rule out a suspected release because the ATG only tests the inner wall of the tank and not the outer wall. If the outer wall appears to be compromised, the owner must report a suspected release to DEQ.

False Alarms

In some cases, it may be clear that other reasons exist for the failed test that don't relate to the operability of the monitoring system. For example, a power surge that occurs during the testing period, tank filling or dispensing during the test, or water in a submersible turbine pump (STP) sump could result in a failed test or alarm. For that reason, the regulation, through subsection 190.3.d, allows an owner or operator to rule out a release for reasons other than equipment malfunction.

Specifically, the regulation states that an owner or operator is not required to report a suspected release if "[t]he alarm was investigated and determined to be a non-release event (for example, from a power surge or caused by filling the tank during release detection testing)." DEQ interprets this subsection to refer generally to external events that impact the test itself rather than problems with the monitoring equipment. This subsection could also apply to issues within the tank system, such as temperature differentials, that may cause a false alarm from the monitoring system or result in water in an STP sump.

This subsection does not relieve an owner or operator of the obligation to investigate an alarm or circumstance that indicates a release may have occurred. Again, in any situation where the system is indicating a potential leak, an owner/operator must first investigate and the first step in making this determination is investigating the alarm in accordance with the manufacturer's instructions, if any. This subsection simply acknowledges that there may be reasons other than monitoring equipment malfunction that cause a false alarm.

Any determination that the alarm was a "non release event" must be supported. Owners and operators who choose to investigate and make this determination on their own must demonstrate they have sufficient experience with the tank system and monitoring equipment to investigate and make an informed judgment on whether a release has occurred.

Note: Malfunctioning release detection equipment and improperly programmed equipment are reasons that a monitoring device may show a failed test or alarm. DEQ recommends that owners and operators schedule regular maintenance checks for their RD equipment to reduce the number of inaccurate test results that must be investigated. Regardless, all owners and operators must test their release detection equipment for adequate operability by January 1, 2021 and annually, thereafter (130.A.3). If testing demonstrates that the equipment is not operating at a capacity to comply with the regulation, the equipment must be repaired or replaced.